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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/604,835	06/27/2000	Sadik Bayrakeri	19880-001210	6538

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EXAMINER

BELIVEAU, SCOTT E

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 09/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/604,835

Applicant(s)

BAYRAKERI ET AL.

Examiner

Scott Beliveau

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Miscellaneous***

1. Pursuant to a conversation with Leah Nickelson on 25 August 2005, it was brought to the examiner's attention that prior Office Action indicated that claims 15 and 16 had been rejected; however, the body the rejection failed to indicate such. The examiner apologizes for any inconvenience caused by this oversight and submits the following supplemental action which reiterates the previously presented rejection and properly addresses the claims 15 and 16.

### ***Priority***

2. With respect to applicant's claim for receiving the benefit of an earlier filing date under 35 U.S.C. 120, as aforementioned, the examiner finds adequate under 35 U.S.C. 112 for the claimed limitations circa the filling of US App. No. 09/538,562 29 March 2000 (IA: Page 30, Lines 1-24). Accordingly, the claimed subject matter shall be examined on the basis of 29 March 2000.

### ***Response to Arguments***

3. Applicant's arguments filed 04 March 2005 have been fully considered but they are not persuasive with respect to the teachings of the Rao reference (of record).

With respect to applicant's arguments that the Rao reference fails to "maintain the status of streams being served", the examiner respectfully disagrees. Applicant appears to differentiate between the newly presented claim limitation and the teaching of Rao based

upon the premise that the request processor [110] maintains for each channel a list of set top units that have requested the program transmitted over that channel, but that it does not maintain the status of streams being served. However, it is the examiner's opinion that by maintaining the list of set-top units that have requested a given program being transmitted over the channel, that the system is also conversely maintaining a list of the programs that are currently being transmitted to the set-top terminals; thereby "maintaining the status of streams being served". For example, if a given set-top terminal is requesting a certain stream, the status of the stream is currently "being requested". Once all set-top terminals have stopped requesting the stream the status is "not requested" and the transmission of that stream may subsequently be terminated.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-4, 6-8, 15 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Rao (US Pat No. 5,940,738).

In consideration of claim 1, the Rao reference discloses a method for delivering short-time duration video segments in a multiplexed transport stream" in accordance with the MPEG-2 standard to "terminals" [1204] via a "communications network" provided by a

CATV provider (Figure 12B). As illustrated in Figures 11-12, the method comprises “receiving from a terminal a request for a video segment corresponding to a selected object” [1110], “processing the request at a session manager” [1106], and “transmitting a control message from the session manager to a transport stream generator” [1108] which “maintains [the] status of streams being served” (ex. currently requested or not currently requested) and “transmits said video segment if sufficient bandwidth is available” (ex. if there is insufficient bandwidth a user will not be able to receive a requested program) (Col 15, Lines 32-56; Col 17, Line 19-43; Col 18, Lines 38-53; Col 19, Lines 21-43). With respect to the limitation of utilizing a “control message indicating whether one of the oldest transport streams may be discontinued by said transport stream generator to release bandwidth”, the reference teaches that such is performed on a periodic basis upon which inactive streams are discontinued after a certain period of inactivity as expired (Col 20, Line 22 – Col 21, Line 22). Finally, the “transmitted video segment” is subsequently “adapted for presentation at said requesting terminal” in accordance with the required processing of MPEG-2 data for presentation to subscriber at the “beginning portion of said video segment” corresponding to the start of the first rendered portion of the requested presentation.

Claim 2 is rejected wherein the “video segments are delivered as part of an interactive program guide” (Col 16, Lines 1-3).

Claim 3 is rejected wherein the “communication network comprises a cable distribution network” (Figure 14; Col 17, Lines 19-25).

Claim 4 is rejected wherein a “headend of the cable distribution network includes the session manager” (Col 22, Lines 29-41).

Claim 6 is rejected wherein the “transmission of the video segment includes inserting a demand-cast video stream incorporating the video segment into a multiplexed transport stream to be delivered to the requesting terminal” (Col 22, Lines 29-63).

Claims 7 and 8 are rejected wherein the aforementioned “session manager” “tracks . . . video segments currently being acquired by at least one terminal” via a “transmission from the requesting terminal to the session manager of a release message when the terminal is no longer presenting the video segment” (Col 20, Lines 29-42).

Claim 15 is rejected wherein the aforementioned “multiplexed transport stream further comprises transports streams that are acquired by one or more terminals” [1204] (ex. TS associated with programs being actively requested) and “transport streams that are released by one or more terminals” [1024] (ex. TS associated with programs no longer being actively requested) (Col 20, Line 22 – Col 21, Line 22)

Claim 16 is rejected as aforementioned wherein “one of the oldest transport streams is selected from the released transport streams” or transport streams no longer being actively requested (Col 20, Line 22 – Col 21, Line 22).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rao (US Pat No. 5,940,738) in view of Hendricks et al (US Pat No. 5,559,549).

With respect to claim 5, the claimed "composing a video sequence incorporating the video segment in a window smaller than and overlaying the screen," encoding, and transmission of the video sequence incorporating the video segment are not taught by Rao. Hendricks et al. teach overlaying techniques associated with reduced size requested video incorporated into a video sequence for display in a program guide (Col. 18, Lines 11-27). Hendricks also teaches encoding (Col. 5, Lines 52-61). It would have been obvious for one skilled in the art at the time of the invention to modify the techniques of Rao by encoding and overlaying reduced sized video within a program guide as taught by Hendricks in order to maximize use of available bandwidth and viewing space.

9. Claims 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rao (US Pat No. 5,940,738) in view of Aharoni et al. (US Pat No. 6,014,694).

With respect to claims 9, 11, and 12, the claimed "plurality of video segments transmitted . . . to a plurality of terminals" is met as noted in response to claims 1 and 6 above. The

claimed "data structure for representing the plurality of video segments . . . comprising a group of pictures (GOP) having a first picture and one or more remaining pictures" is not taught by Rao. The examiner notes that MPEG-2 coding standards, such as those employed by Rao using groups of pictures are notoriously well known in the art. To these means, Aharoni et al. teaches using the MPEG data structure (Col. 6, Lines 56-60) with a GOP having a first key (I) frame [60] and one or more remaining pictures [62, 64 . . .] as seen in Figure 4. Each video segment may include frames which occupy a portion of the GOP that includes the video segment as seen in Figure 4. Accordingly, it would have been obvious for one skilled in the art at the time of the invention to modify the methods of Rao by utilizing coding standards as taught by Aharoni et al. in order to conform to industry standards and ensure system compliance.

With respect to claim 10, the claimed "first set of one or more elements for representing data in the plurality of GOP's ... encoded as a reference I picture, and wherein each of remaining elements . . . encoded as either a difference picture or a P picture" is not taught by Rao. As seen in Figure 4, Aharoni et al. teaches a key (I) frame followed by a plurality of either P or B frames. The claimed "second set of one or more elements . . . " wherein each element is "encoded as either a P picture or a B picture" is met by the remaining P and B frames 66-72 seen in Figure 4. The claimed streams being represented by one or more elements in the first set and one or more in the second set is met by sending a stream comprising selected frames including a plurality of GOP's having I, P, and B frames seen at step [198] of Figure 13 of Aharoni et al. It would have been obvious for one skilled in the art at the time of the invention to modify the methods of Rao by utilizing coding standards as



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taught by Aharoni et al. in order to conform to industry standards and ensure system compliance.

With respect to claim 13, the claimed GOP's including "a first portion indicative of textual information, and a second portion indicative of video information" is not taught by Rao or Aharoni et al. Applicant's admission of fact (see Final Rejection, 21 November 2003), provides evidence that it is notoriously well known in the art for textual information to precede video information in a GOP. Accordingly, it would have been obvious for one skilled in the art at the time of the invention to modify the methods of Rao and Aharoni et al. to include textual information prior to video information in a GOP in order to provide information vital to properly decoding the video sequence.

With respect to claim 14, the claimed "first and remaining pictures in the plurality of GOPs sharing a common first portion" is not taught by Rao, but is met by a common "key frame" portion of the GOPs as seen in Figures 4 and 8 of Aharoni et al. It would have been obvious for one skilled in the art at the time of the invention to modify the methods of Rao by utilizing coding standards as taught by Aharoni et al. in order to conform to industry standards and ensure system compliance.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as follows. Applicant is reminded that in amending in response to a rejection of claims, the patentable novelty must be clearly shown in view of the state of the art disclosed by the references cited and the objections made.

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- The Wolf et al. (US Pat No. 5,461,415) reference discloses a system and method for maintaining the status of video streams.
- The Rodriguez et al. (US Pub No. 2005/0071882) reference discloses a system and method for bandwidth allocation based upon subscriber requests and the session status..

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Beliveau whose telephone number is 571-272-7343. The examiner can normally be reached on Monday-Friday from 8:30 a.m. - 6:00 p.m..


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Scott Beliveau  
Examiner  
Art Unit 2614

SEB  
August 29, 2005



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